



224745

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

DATE: SEP 28 1992

SUBJECT: ON-SCENE COORDINATOR'S REPORT - Removal Action at the Carrico Drum Site, Bent and Poplar Streets, Washington, Daviess County, Indiana, Site ID # PF

FROM: Robert J. Bowden, Chief  
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TO: Debbie Dietrich, Director  
Emergency Response Division, OS-210

THRU: Jodi L. Traub, Acting Associate Division Director  
Office of Superfund, HS-6J *Jodi L. Traub*

Attached please find the On-Scene Coordinator's Report for the removal action conducted at the Carrico Drums site located in Washington, Daviess County, Indiana. The report follows the format outlined in the National Contingency Plan (NCP), Section 300.165. This removal began on September 18, 1991 and was completed on January 11, 1992. The OSC for the removal action was Maureen O'Mara.

The site posed an immediate threat to human health and the environment. The action was taken to mitigate threats posed by low flash-point materials, such as waste paints and lacquers, and ~~asbestos~~ asbestos. Site assessment activities documented the presence of hundreds of open, leaking, and unsecured containers, tanks, and contaminated soil. Site access was unrestricted.

Costs under the control of the On-Scene Coordinator totaled \$339,525.62 of which \$285,632.51 were for the Emergency Response Cleanup Services (ERCS) contractor.

Any indication in this OSC Report of specific costs incurred at the site is only an approximation, subject to audit and final definitization by the U.S. EPA. The OSC Report is not a final reconciliation of the costs associated with a particular site.

Portions of the OSC Report appendices may contain confidential business or enforcement-sensitive information and must be reviewed by the Office of Regional Counsel prior to release to the public.

This site is not on the National Priorities List.

Attachment

cc: Indiana Department of Environmental Management, w/OSC Report  
T. Johnson, U.S. EPA, OERR, OS-210, w/OSC Report

bcc: S. Kaiser, 5CS-TUB-3, w/OSC Report  
T. Lesser, 5PA-14, w/OSC Report  
O. Warnsley, CRU, 5HS-TUB-7, w/OSC Report  
Regina Baker, 5RA, w/OSC Report  
R. Mayhugh, 5HS-TUB-6, w/OSC Report (20 copies for RRT distribution)  
B. Ramsey, Secretary, NRT, OS-120  
M. O'Mara, w/OSC Report  
R. Bowden, w/OSC Report  
M. O'Mara, Acting Chief, ESS, w/OSC Report  
R. Powers/R. Buckley (RS1), w/OSC Report  
D. Bruce (RS2), w/OSC Report  
T. Geishecker (RS3), w/OSC Report  
EERB Site File, 5HS-12, w/OSC Report (5)

ON-SCENE COORDINATOR'S REPORT  
CERCLA REMOVAL ACTION  
CARRICO DRUMS SITE  
WASHINGTON, INDIANA  
SITE ID # PF  
DELIVERY ORDER NO. 7640-05-199  
Removal Dates: 9/18/91 - 1/11/92

Emergency and Enforcement Response Branch  
Office of Superfund  
Waste Management Division  
Region V  
United States Environmental Protection Agency

## EXECUTIVE SUMMARY

Site/Location: Washington, Daviess County, Indiana  
Removal Dates: September 18, 1991 - January 11, 1992

### INCIDENT DESCRIPTION:

This site was the location of an open dump and burn site where waste oils and toxic paint wastes containing heavy metals and solvents were illegally stored.

The removal action was taken to mitigate the threats to public health posed by the presence of the following substances at the site: flammable solids and liquids (waste paints, solvents, and lacquers); oils; asbestos insulation lining two large storage tanks; and other hazardous wastes. The materials, stored in 55-gallon drums and tanks, and in oil-stained soil, posed threats through potential exposure by nearby populations, animals, or food chains. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, and other storage containers posed a threat of release. The potential existed for migration of contaminants by airborne dust or from run-off.

### ACTIONS TAKEN:

The United States Environmental Protection Agency (U.S. EPA) began a three-phase removal action at the site on September 18, 1991. The following emergency removal activities were performed: during Phase I operations, the Emergency Response Cleanup Services (ERCS) crew began to inventory, sample, overpack, and stage drums and other containers. On-site storage tanks were also inventoried and sampled. The Technical Assistance Team (TAT) performed compatibility testing on all drum and tank samples. These substances were then placed into appropriate waste streams. Bulk composite samples of each stream were sent to a laboratory for analysis and later transported to disposal facilities for disposal acceptance. During Phase II operations, the ERCS contractor assisted with the bulking of wastes (base-neutral and base-oxidizing liquids), and loaded and shipped drummed and bulk wastes to several disposal facilities, including Ecolotec, Inc., and Safety-Kleen. The disposal contractor for the waste oils and paints, Safety-Kleen, assisted with loading, shipping, and disposal of the wastes to its New Castle, Kentucky, fuels blending facility. During Phase III operations, work crews removed and shipped emptied, crushed drums; contaminated soil; and other debris to Chemical Waste Management/Adams Center facility. Subcontractors also removed non-hazardous oil and asbestos tank insulation to Safety-Kleen and Pulaski Landfill.

Approximately 13,802 gallons of waste paint materials (flammable liquids); 6,023 gallons of combustible liquids; 100 gallons of waste oxidizing liquids; and 2,655 gallons of waste oil (non-hazardous) were transported off-site for treatment. Approximately 50 cubic yards (cys) of hazardous waste solids (soil and debris) and 21 cys of asbestos were shipped off-site for disposal. All actions taken were consistent with the National Contingency Plan.

The removal was completed on January 11, 1992, at an estimated cost under control of the U.S. EPA On-Scene Coordinator of \$339,525.62 of which \$285,632.51 was for the ERCS contractor. The On-Scene Coordinator was Maureen O'Mara.

Maureen O'Mara  
Maureen O'Mara, On-Scene Coordinator  
Emergency and Enforcement Response Branch  
United States Environmental Protection Agency  
Region V

9/21/92  
Date

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Emergency and Enforcement Response Branch  
Office of Superfund, U.S. EPA, Region V

OSC REPORT STANDARD APPENDICES LIST \*

Site Name: Carrico Drums Site

Site ID#: PF Delivery Order #: 7460-05-199

1. OPERATIONAL FILES

ID#

- Action Memos/Additional Funding Requests/Time Exemptions 1-A
- POLREPs 1-B
- Site Entry/Exit Log 1-C
- Hot Zone Entry/Exit Log 1-D
- Site Safety Plan 1-E
- Site Log(s) 1-F
- Daily Work Orders 1-G
- Site Maps 1-H
- General Correspondence/Information 1-I
- Newspaper Articles 1-J
- Site Photos/Videos 1-K

2. Financial Files

ID#

- Delivery Orders/Procurement Requests Modifications to Contract (ERCS) 2-A
- Technical Directive Documents/Modifications (TAT) 2-B
- Daily Cost Reporting U.S. EPA Form 1900-55's 2-C
- Daily Cost Summaries/ERCS Invoices 2-D
- Cost Estimates/RCMS 2-E
- Superfund Itemized Cost Summary 2-F

(Continued)



OSC REPORT STANDARD APPENDICES LIST (Cont.)

3. Technical Files

- TAT Site Assessment/Emergency Action Plans/Other Reports
  - TAT Letter Report 3-A
- Analytical Results/QA/QC 3-B
- Manifests 3-C
- Disposal Information 3-D
- Drum Logs/VAT Logs 3-E
- Compatibility Results 3-F
- Chains of Custody 3-G
- Waste Profile Sheets 3-H

\* Portions of these OSC Report Appendices may contain confidential business information or enforcement-sensitive information and must be reviewed by the Office of Regional Counsel prior to release to the public.

\* Note that certain files for this site are maintained elsewhere by EERB; these appendices are those files maintained by the OSC during the removal action.

## 1.0 SUMMARY OF EVENTS

### 1.1 Location/Initial Situation

The Carrico Drums Site is located along the east and west sides of Bent Avenue near Poplar Street in unincorporated Washington, Daviess County, Indiana (see Figure 1 for site location). The site is bordered on the east by Hawkins Cemetery and Wright Avenue, on the south by McCormick Avenue, on the west by Oak Grove Cemetery, and on the north by an alley and a ConRail railroad track. The site encompasses approximately 20 acres and lies in a primarily residential neighborhood (see site sketches, Figures 2, 3, and 4). The site owner, Elmer Carrico, of Washington, Indiana, owns other property in the vicinity of the site including an area at the northeast corner of Wright and McCormick Avenues, a house along McCormick Avenue, and property located south of town. The surrounding population receives drinking water from the City of Washington Municipal Water Works. No perimeter fencing exists around the site to prevent unauthorized access.

Numerous waste materials have been dumped on-site over a 30- to 40-year period, including abandoned solid waste (garbage) in open pits; construction debris, some of which had been burned; scrap metal; old tires; appliances; abandoned vehicles; and approximately 585 drums in various stages of deterioration, many of which were rusted and opened. The majority of the drums contained toxic materials, such as waste paints and paint solvents; and waste oils, including cutting, motor, and hydraulic oils. In addition, approximately 53 bulk storage tanks, a fuel oil tanker truck, and various gas cylinders were found on-site. Oil from the tanker and several nearby aboveground storage tanks (ASTs) had seeped out and pooled on the ground, staining the soil and surrounding vegetation. Two storage tanks were also documented as being lined with asbestos insulation.

### 1.2 Previous Actions, or Site History

The Indiana Department of Environmental Management (IDEM) conducted a site investigation to assess the chemical hazards at the site and to determine the threat to the public health and the environment.

IDEM conducted sampling at the site on July 29, 1991. Insulation from two storage tanks and tape wrap from duct work were sampled. Based on the analytical results, IDEM determined that the site was hazardous and posed a threat to human health and the environment and requested further assistance from the U.S. Environmental Protection Agency (U.S. EPA). Among the analytical results were concentrations of greater than 1% in the chrysotile asbestos of the two tank insulation samples.

IDEM had previously taken enforcement action against the property owner regarding the illegal open burning and the unpermitted open dumping of solid waste. Several citations had also been issued by the Daviess County Health Department concerning these matters since the early 1980s. IDEM also traced possible sources of the waste paints to Evans Railcar Company and Washington Railcar, Inc. (both companies of Washington, Indiana, and no longer in operation), and also traced a possible source of the cutting oils to Hoover Group Ball and Roller Division, of Washington, Indiana.

At the request of U.S. EPA, the Technical Assistance Team (TAT) met with the U.S. EPA On-Scene Coordinator (OSC) and state and local officials and conducted a site assessment of the site on August 12, 1991. The TAT collected six samples for analysis to determine potential threats at the site; conducted air monitoring; and documented the areas of stored drums, tanks, and stained soil. During the site assessment, three distinct properties of waste storage were identified: the East Property, the Near West Property, and the West Property. Within these properties, three areas of drum storage were marked: Area 1 (Near West Property), Area 2 (East Property), and Area 3 (northeast corner of the East Property). Sample results confirmed the presence of hazardous substances at the Carrico Drum site.

### 1.3 Threat to Public Health and/or the Environment

The site posed an imminent and substantial threat to human health and the environment based upon the following criteria listed in Paragraph (b)(2) of Part 300.415 of the National Contingency Plan (NCP):

Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chains: Analytical results from four drum samples and two soil samples indicated the presence of flammable materials and other hazardous substances at the Carrico Drums Site. Drums, tanks, and other containers were opened and had leaked. Access to the site was unrestricted creating a significant threat of exposure to nearby residents.

Hazardous substances or pollutants or contaminants in drums, barrels, vats, and other bulk storage containers that posed a threat of release: A number of drums and tanks were documented as leaking, open, deteriorating, and rusting. The drums, tanks, and other containers posed a threat of release.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate: Several areas of the ground were stained with oil and dried paint as result of container leakage. The waste paints were contaminated with high levels of metals and volatile organic compounds, and were flammable. Contaminants could potentially

migrate by surface run-off into nearby drainage areas and by airborne dust migration.

Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released: The leaking drums, storage tanks, and other containers, as well as contaminated soil from around these containers, were under constant exposure to the elements. Wind, rain, and direct ultraviolet sunlight had caused excessive degradation of the on-site drums and tanks, which could have caused further migration of contaminants if additional hazardous materials had leaked.

Threat of fire or explosion: The site housed several drums and tanks of flammable materials, and three drum samples exhibited characteristics of flammability. The site has been the scene of several fires in the past and reports indicated that these fires were set intentionally to burn refuse. The potential existed for trespassers to come into contact with hazardous substances stored in drums and tanks. Also, if these substances caught on fire, migration of contaminants could have posed an additional threat to the public and/or environment.

#### 1.3.1 Natural Resource Damage

No formal Natural Resource Damage Study was conducted.

#### 1.4 Attempts to Obtain a Response by PRP

During the initial site investigation, U.S. EPA identified the site owner, Elmer Carrico, as the Potentially Responsible Party (PRP). The U.S. EPA OSC attempted to obtain the PRP's response to requests for site clean-up. A verbal notification was issued to Elmer and Grace Carrico to initiate a site removal action on September 17, 1991, stating that U.S. EPA would start cleanup actions on September 18, 1991 if no action was initiated. Both Elmer and Grace Carrico declined to conduct the removal claiming that they were financially unable to perform the cleanup. The final notice letter was sent September 24, 1991.

On October 21, 1991, Information Request letters under Section 104(e) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) were issued to Mr. and Mrs. Elmer Carrico, Hoover Group Ball, and Evans Railcar. Both the Hoover Group and Evans Railcar were suspected of disposing of waste at the site. Responses to the 104(e) letters were inconclusive and no Administrative Orders were issued.

#### 1.5 Chronological Narrative of Response Actions Taken

On September 18, 1991, the U.S. EPA initiated a removal action. The OSC obtained verbal authorization to expend up to \$50,000 to stabilize and secure the site. An Action Memo was authorized on

December 11, 1991, confirming the initial \$50,000 and requesting an additional \$550,000 for a total site ceiling of \$600,000.00 for a removal action at the Carrico Drums site.

#### 1.5.1 Phase I Operations

Phase I of the U.S. EPA removal action began on September 18, 1991, and was completed on September 25, 1991. On September 18, the work force, consisting of personnel from U.S. EPA, TAT, and the Emergency Response Cleanup Services (ERCS) contractor, mobilized to the site and began removal actions. A truckload of empty overpack drums was unloaded, and site security was established. On September 19, the work crew sampled, staged, and overpacked drums and cleared an area to stage the overpacked drums at the Carrico East Property. On September 20, drum sampling, overpacking, and staging continued, and 30 additional drums of waste paints, previously undiscovered, were identified on the Carrico West Property near Poplar Avenue.

On September 21, the crew continued drum sampling and staging overpacked drums at the drum staging area and cleared an area on the Near West Property that was suspected of having buried drums, using a bulldozer. An additional truckload of 140 overpack drums was unloaded. On September 22, work crews continued to sample, overpack, and stage drums, overpacking 112 drums during the day. A subcontracted landscaper cleared brush from along site access roads.

On September 23, work shifted to the northeast corner of the Carrico East Property (Area 3), where work crews sampled, overpacked, and staged drums. During the day, drums were sampled at several areas, including 70 drums at the East Property (Area 2) and 106 drums at Area 3. ERCS unloaded 115 empty overpacks for additional overpacking operations. On September 24, the crew overpacked approximately 70 drums at Area 2 and Area 3. After locating additional drums at another PRP property located at the northeast corner of Wright and McCormick Avenues, ERCS sampled and later overpacked 25 drums. Several stray drums, hidden by brush and not originally staged with the other drums, were also sampled and overpacked.

On September 25, the ERCS crew marked, sampled, overpacked, and staged three additional drums located on PRP property, thus completing drum sampling and overpacking. After staging all drums inside the drum staging area, the crew placed fencing around the area for marking. Following drum operations, the TAT and ERCS inspected, inventoried, and sampled on-site storage tanks. After completion of its work assignments, the ERCS crew and its equipment were demobilized on this date.

After the crew sampled drums, soil, and debris, the TAT performed hazard categorization on all samples to determine waste streams for disposal and to define waste characterization. Samples of compatible waste streams were grouped and composited, and composite samples were packed and shipped to Hayden Environmental Laboratories (Hayden) in Miamisburg, Ohio for analysis (see Appendix 3B - Analytical Results). Based on the sample results received from Hayden, additional composite profile samples were sent to disposal facilities for acceptance.

The waste composite groups were broken down into 8 groups and listed as follows:

- Group A - Base/Neutral Liquids
- Group B - Base Oxidizing Liquids
- Group C - Oils
- Group D - Flammable Paint Solids
- Group E - Flammable Paint Liquids
- Group F - Chlorinated Oils (later combined with Group C)
- Group G - PPE and Debris (later combined with Group H)
- Group H - Soil (later combined with Group G)

#### 1.5.2 Phase II Operations

Phase II operations were conducted from December 11 to 16, 1991. On December 11, personnel from U.S. EPA, the TAT, and the ERCS remobilized to the site to resume removal actions. ERCS personnel segregated and bulked drummed wastes as instructed by the TAT disposal groupings, starting with consolidation of the base/neutral (B/N) liquids. ERCS assisted with the loading of 151 drums of flammable liquids and solids, which were later sent for disposal. On December 12, work crews consolidated waste streams, placing used samples into drums, consolidating B/N liquids, and staging drums containing soil and debris. A total of 140 drums of waste paint were shipped off for disposal.

On December 13, crews continued to stage oil, B/N liquids, soil/debris drums, and completed the consolidation of the base-oxidizing liquids. Safety-Kleen pumped waste oil into a vacuum truck and loaded 82 drums of waste paint and 40 drums of waste combustible liquids onto trucks for transport to Safety-Kleen's disposal facility in New Castle, Kentucky. A total of 27 drums of waste combustible liquid and 2 drums of base-oxidizing liquid were shipped to Ecolotec, Inc., in Dayton, Ohio for treatment and disposal. On December 16, approximately 2,131 gallons of waste oil was pumped from on-site storage tanks and sent to Safety-Kleen's facility in New Castle, Kentucky.

### 1.5.3 Phase III Operations

Phase III operations were conducted from January 8 to 11, 1992. On January 8, 1992, personnel from U.S. EPA, ERCS, and the TAT remobilized to the site. The ERCS crew crushed empty drums and loaded them into a 30-cubic yard (cy) roll-off box. ERCS excavated oil-contaminated soil from around the ASTs and tanker truck to a depth of 1 to 2 feet. After an asbestos abatement contractor had inspected the asbestos tank insulation, ERCS moved debris away from asbestos tanks. On January 9, Safety-Kleen pumped approximately 524 gallons of oil from tanks into a tanker truck and transported it to Safety-Kleen's New Castle, Kentucky, facility. Contaminated debris, including cut-up and crushed drum parts, personal protective equipment (PPE), and contaminated soil, were placed into a 30-cy roll-off box and sent to the Chemical Waste Management's (CWM) - Adams Center Landfill facility in Fort Wayne, Indiana, for disposal. Asbestos abatement of tank insulation also began on this date and was completed on January 10.

On January 10, the ERCS crew was demobilized, after completing soil excavation and loading an additional 20-cy roll-off box with the remaining oil- and paint-contaminated soil, empty drums, used PPE, and other debris. The roll-off was then shipped to CWM - Fort Wayne, Indiana. Petrolane Gas collected small propane cylinders for off-site disposal.

On January 12, the asbestos containment around the ASTs was removed and 21 cubic yards of asbestos material was sent to Pulaski Landfill's Burnside, Kentucky, facility after asbestos clearance samples had passed testing requirements. The OSC and the TAT then demobilized from the site.

Drummed soil and debris waste materials were sent to Ecolotec, Inc., in Dayton, Ohio; Safety-Kleen in New Castle, Kentucky; Pulaski Landfill in Burnside, Kentucky; and Chemical Waste Management in Fort Wayne, Indiana, for treatment and/or disposal.

Treatment technologies used for the project included fuels blending for the paint liquids and solids and the non-hazardous waste oil. This option was the most cost-effective and served a useful purpose as fuel for a cement kiln process. The contaminated soil, empty drums, other debris, and the asbestos were sent for landfill disposal. Incineration and other options did not prove to be cost-effective or convenient.

### 1.5.4 Waste Disposal Summary

Table 1 presents information concerning the disposal of wastes from the Carrico Drums Site, including dates, quantities shipped, manifest numbers, and the facility accepting the wastes for disposal.

**TABLE - WASTE DISPOSAL SUMMARY**  
**Carrico Drums Site**  
**Washington, Indiana**

Waste Category	Quantity Shipped	Date Shipped	Manifest Number	Disposal Method	Facility/ Location
RQ Waste Paint Related Material Flammable Liquid UN 1263 (D001)	5,079 gallons	12/11/91	INA0489949	Fuel Blending	Safety-Kleen New Castle, KY
	5,545 gallons	12/12/91	INA0589948 INA0480352 INA0589947	Fuel Blending	Safety-Kleen New Castle, KY
	3,178 gallons	12/13/91	INA0626927 INA0584428 INA0626929 INA0626930 INA0626931	Fuel Blending	Safety-Kleen New Castle, KY
RQ Waste Combustible Liquid, N.O.S. (Aliphatic & Aromatic Hydrocarbons) NA1993 (D001)	2,692 gallons	12/11/91	INA0489949 INA0589948 INA0480352	Fuel Blending	Safety-Kleen New Castle, KY
	765 gallons	12/12/91	INA0589947 INA0626927 INA0584428	Fuel Blending	Safety-Kleen New Castle, KY
	1,081 gallons	12/13/91	INA0626929 INA0626930 INA0626931	Fuel Blending	Safety-Kleen New Castle, KY
	1,485 gallons	12/13/91	INA0584430	Treatment	Ecolotec Dayton, OH
Waste Oil (Non-Hazardous)	2,131 gallons	12/16/91	12020	Fuel Blending	Safety-Kleen New Castle, KY
	524 gallons	1/9/92	INA0589985	Fuel Blending	Safety-Kleen New Castle, KY
RQ Waste Oxidizer, N.O.S., Oxidizer, UN1479 (D001)	100 gallons	12/13/91	INA0584430	Treatment	Ecolotec Dayton, OH
Non-Hazardous, Non-Regulated Material (Soil and Debris)	30 cubic yards	1/9/92	00001	Landfill	Chemical Waste Management (CWM) Ft. Wayne, IN
	20 cubic yards	1/10/92	00002	Landfill	CWM-Ft.Wayne, IN
RQ, Hazardous Substance, Solid, N.O.S., ORM-E, NA9188 (Asbestos)	21 cubic yards	1/11/92	92B0207000	Landfill	Pulaski Landfill Burnside, KY



#### 1.6 Community Relations

No formal Community Relations Plan was prepared for the Carrico drum site. However, the OSC frequently informed the local residents and media of progress during the cleanup. An Administrative Record was created and placed in an information repository at the Washington-Carnegie Public Library in Washington, Indiana for public access.

#### 1.7 Cost Summary

Costs for the project were broken down into three categories, including ERCS costs, TAT costs, and U.S. EPA costs. Costs for ERCS were gathered from 1900-55 document forms and Invoices 1199-1, 1199-2, 1199-3, under Delivery Order No. 7460-05-199. TAT costs were generated from the Technical Directive Document (TDD) T05-9109-014 and the TAT General TDD Listing for week ending April 25, 1992. EPA costs were taken from the Incident Obligation Log and U.S. EPA time sheets and expense reports.

These costs are estimated, subject to audit and final definitization by the U.S. EPA. The OSC Report is not intended to be a final reconciliation of all costs associated with a particular site.

SUMMARY OF TOTAL ESTIMATED REMOVAL COSTS  
Carrico Drums Site  
September 18, 1991 - January 11, 1992

EXTRAMURAL COSTS:

ERCS Contractor (1)	\$285,632.51
Labor/Travel/Subsistence	\$ 49,622.58
Equipment	\$ 9,974.05
Materials	\$ 1,408.11
Transportation	\$ 2,629.95
Disposal	\$171,943.42
Subcontractors	\$ 50,054.40
 TAT Contractor (2)	 \$ <u>43,170.07</u>
Subtotal	\$328,802.58

INTRAMURAL COSTS:

U.S. EPA, OSC - Direct Costs	\$ 4,336.54
Indirect Costs (3)	\$ <u>6,386.50</u>
Subtotal	\$ 10,723.04
 ESTIMATED TOTAL PROJECT COSTS	 \$339,525.62
PROJECT CEILING	\$375,000.00

- (1) Source: ERCS Contractor, International Technologies, Inc., Delivery Order # 7640-05-199, Final Invoice # 1199-3, 3/27/92, (Appendix 2-D).
- (2) Source: TDD No. T05-9109-014 and TAT General TDD Listing for week ending 4/25/92.
- (3) Source: (U.S. EPA Financial Management Branch, Itemized Cost Summary 6/18/92, Appendix 2-F) and Daily Cost Summary dated 1/14/92.

These costs are estimated, subject to audit and final definitization by U.S. EPA. The OSC Report is not meant to be a final reconciliation of the costs associated with a particular site.

## 2.0 EFFECTIVENESS OF REMOVAL ACTIONS

The following is a discussion of the effectiveness of the U.S. EPA Removal Action, based upon support from all parties involved.

### 2.1 The Potentially Responsible Party

No action was taken by the PRP, Elmer Carrico, to clean up the site prior to the U.S. EPA removal action. The OSC made several attempts to request the PRP to respond and take action to the threats at the site (see Section 1.4 for details).

### 2.2 State and Local Agencies

#### 2.2.1 State Agencies

IDEM had responded to reports of environmental hazards at the site, as well as to reports from the Daviess County Health Department of numerous occurrences of unauthorized fires and open dumping at the site. IDEM conducted a site inspection in July 1991 and sampled tank insulation suspected of containing asbestos. Results later confirmed the presence of asbestos in the insulation (see subsection 1.2 for more details). IDEM was not financially able to perform the cleanup.

#### 2.2.2 Local Agencies

The Daviess County Health Department (DCHD) provided information about the site during the early stages of the U.S. EPA investigation. Information provided include land plots of the Carrico property, previous county investigations, and copies of fire/police reports dealing with open burning offenses. The City of Washington, through the Office of the Mayor, and the city Police Department provided site security and additional information about the site.

### 2.3 Federal Agencies and Special Teams

No other Federal Agencies were involved in the removal at the Carrico Drum site.

### 2.4 Emergency Response Contractor Services (ERCS)

Under direct supervision from the U.S. EPA OSC, the ERCS contractor provided personnel and equipment to handle clean-up operations. ERCS assisted with inventorying, sampling, staging, and bulking the on-site drums and other storage containers; excavated, staged, and arranged disposal of the on-site contaminated soils; and containerized and arranged disposal of cut-up empty drums, personal protective equipment (PPE), and other debris.

#### 2.4.1 Technical Assistance Team (TAT)

The TAT provided contractor services to U.S. EPA for special assistance, including air monitoring, contractor monitoring, documentation of site activities, and conducting correspondence between U.S. EPA and its contractors and state and local agencies. The TAT also assisted with the sampling, inventory, hazard categorization, and the bulking of waste streams prior to final disposal. The TAT maintained all U.S. EPA site files and performed cost tracking assistance for the project. The TAT drafted a final report for the removal action for the OSC.

#### 3.0 DIFFICULTIES ENCOUNTERED

Disposal of drummed material was delayed due to sampling that was done improperly initially. The initial drum inventory prepared was also inadequate so the contents of the drums was not exactly known. This caused additional costs in disposal of the drums.

#### 4.0 RECOMMENDATIONS

Removal of hazardous materials effectively mitigated threats to human health and the environment posed by hazardous materials at the site.